

# 2010 CVD Fact Sheet

## Cardiovascular Disease (CVD) - Heart Disease, Stroke & Other Categories

CVD is the number one cause of death in Michigan and has been nationally since 1919. <sup>(1,2)</sup>

In 2008, heart disease and stroke killed 29,019 Michiganians. <sup>(1)</sup>

Michigan ranks 10th worst of the fifty U.S. states for CVD age-adjusted mortality (291.7 per 100,000), based on 2006 death rates. <sup>(2)</sup>

One out of every three deaths in Michigan is due to CVD. <sup>(1)</sup>

The Michigan CVD economic burden direct & indirect costs, is estimated at \$16.8 billion. <sup>(2)\*</sup>

More than one in three American adults have some form of CVD and growth in the number of people over 65 years of age, increasing obesity and diabetes will increase the prevalence of CVD. <sup>(2)</sup>

74.5 million American adults have high blood pressure; 17.6 million have coronary heart disease; 5.8 million have congestive heart failure; about 6.4 million have had a stroke. <sup>(2)</sup>

The Michigan Behavioral Risk Factor Survey (BRFS) has consistently shown that CVD risk factors are often more common among those with a lower socio-economic status. <sup>(3)</sup>

### Heart Disease

Most CVD deaths are due to heart disease. Heart disease has been the leading cause of death for decades and killed 24,369 Michiganians in 2008 and on average, someone dies about every 20 minutes of heart disease in Michigan. <sup>(1)</sup>

Coronary Heart Disease (CHD) is the most prevalent & preventable form of heart disease and estimated costs in Michigan are \$5.9 billion.

Michigan has the 7th worst age-adjusted CHD death rate (156.6 per 100,000) of the fifty U. S. states, based on 2006 mortality data. <sup>(2)</sup>

Since the mid-1970's, Michigan's age-adjusted heart disease death rate has been above the national rate, although the gap has been narrowing. On average, Michigan has 66 heart disease deaths per day. <sup>(1)</sup>

Michigan's age-adjusted heart disease death rate for Blacks remains higher than national rates. The disparity is greatest between Black and White men. <sup>(1)</sup>

Heart Failure is a growing problem and costs an estimated \$1.3 billion in Michigan, and preventable re-hospitalization is a major contributor. <sup>(2)</sup>

### Stroke

Stroke is a leading cause of long-term, severe disability and is the third leading cause of death in the U.S. and Michigan. In Michigan, someone dies of a stroke every 110 minutes and estimated stroke costs of stroke are \$2.5 billion. <sup>(1,2)</sup>

In 2008, there were 4,650 stroke deaths in Michigan. <sup>(1)</sup> Those who survive stroke often live with serious long-term impairments.

High blood pressure (HBP) is a major risk factor for stroke. HBP costs in Michigan are estimated at \$2.56 billion. <sup>(2)</sup> Controlling HBP can reduce the risk of stroke up to 40%. <sup>(4)</sup>

Michigan is ranked as 25th worst in the fifty U.S. states for stroke mortality (44.5 per 100,000), based on 2006 mortality data. <sup>(2)</sup>

Michigan's age-adjusted stroke death rate for Blacks is above national and state rates for Whites and national rates for Blacks.

(1) Michigan Health Statistics. Division for Vital Records and Health Statistics - Michigan Department of Community Health. April 2010

(2) American Heart Association. Heart and Stroke Statistics - 2010 Update. Dallas, Texas: American Heart Association; 2010

\*(Cost estimated from report using MI % of U.S. pop [3.34%].)

## Emerging Issues

Five contiguous Michigan counties (Arenac, Bay, Gladwin, Clare and Ogemaw) have the highest hospitalization rates for CVD, heart disease, CHD and heart failure,

Heart attack (90 minutes) and stroke (180 minutes) are time dependent medical emergencies. A 2006 EMS Survey showed rural run times average 94.8 minutes and Michigan is one of the few states NOT to have a funded statewide trauma system. This impacts emergency response to stroke and heart attack.

In 2006 there were an estimated 200,000 stroke survivors. A 10% reduction in strokes could reduce Medicaid costs by \$29.8 million, much of the costs related to long-term care and disability.

Michigan 2005 age-adjusted mortality rates per 100,000 population for stroke (46.4) and CHD (161.1) reached Healthy People 2010 goals, 50 and 162 respectively. <sup>(2,3)</sup> Preventing and controlling CVD risk factors will be essential to maintain these outcomes and progress.

## Multiple Risk Factors

The major modifiable risk factors for CVD are cigarette smoking, physical inactivity, diabetes, overweight, high blood pressure, and high blood cholesterol.

In 2008, Michiganians continuously had higher than average CVD risk factors. Only 4.4% of Michiganians reported engaging in all 4 healthy lifestyles (healthy weight, adequate fruit and vegetable intake, not smoking, and engaging in adequate physical activity). <sup>(5)</sup>

In 2007, the age-adjusted percent distributions show that 97.1% of Michigan adults have one or more of the major CVD risk factors: 13.9% reported one, 25.8% reported two, 26.3% reported three, and 18.6% reported four or more risks. <sup>(5)</sup> Risk factors include high blood pressure, high cholesterol, smoking, overweight, diabetes, inadequate diet [ $<5$  servings of fruit and vegetables/day] and inadequate physical activity [ $<30$  min. 5 x/wk moderate or  $<20$  min 3x/wk vigorous].

Nationally, of those with high blood pressure, 30% don't know they have it, only 34% have their blood pressure controlled, 25% are on medication but it's not controlled, and 11% aren't on any medication. <sup>(4)</sup>

### **PERCENTAGE OF MICHIGAN ADULTS WITH CVD RISK FACTORS, 1990-2008 <sup>(5)</sup>** (With comparison to 2008 National BRFSS Data)

2008

RISK FACTOR	1990	1996	2002	2008	US 2008	National Ranking
Current Smoking	29.2	25.6	24.1	20.2	18.2	15 <sup>tied</sup>
Blood Pressure: Ever Told High	23.3	23.8	NS	28.6 <sup>2007</sup>	27.5 <sup>2007</sup>	17 <sup>2007</sup>
Cholesterol: Ever Told High <sup>(of tested)</sup>	27	30.1	NS	39.9 <sup>2007</sup>	37.5 <sup>2007</sup>	5 <sup>2007</sup>
Overweight (BMI $\geq 25$ ) (Includes obesity)	47.4	54.7	62.1	65.3	63.1	16 <sup>tied</sup>
Obese (BMI $\geq 30$ )	14.1	18.3	25.2	30.1	26.6	8 <sup>tied</sup>
Fruits & Vegetables: Less than 5 servings/day	NS	77.9	77.4	78.3	75.7 <sup>2007</sup>	14 <sup>2007</sup>
No Leisure Time Physical Activity	NS	23.1	24.3	25.1	24.8	23
Diabetes	NS	5.3	8.1	9.0	8.2	17

NS = Not Sampled that year or question/survey not comparable

More detailed information including maps of heart disease and stroke rates by county and epidemiological statistics at <http://www.michigan.gov/mdch/cvhd> or <http://www.michigan.gov/mdch> (statistics)

(3) Healthy People 2010. DHHS.

(4) JNC 7, NHLBI, NIH, Hypertension. 2003; 42:1206-1252 and NHANES III.

(5) Behavioral Risk Factor Surveys, MDCH, 1990-2008\* & U.S. BRFSS 2008.